

REMARKS

This invention relates to, *inter alia*, the use of polyphenol compounds or derivatives thereof obtained, for example in an extract of rosemary, to reduce the amount of free-radicals containing cytotoxic molecules from cigarette smoke.

This Amendment is accompanied by a Petition Under 37 CFR 1.137(b). It is believed that no additional fee is required for the consideration of this Amendment. If, however, a fee is required the Director is authorized to charge such fee to Deposit Account 50-0320.

This Amendment cancels all pending claims without prejudice or the intention of creating estoppels and adds a new set of claims which is directed to a preferred embodiment; viz, the use of polyphenol compounds or the derivative thereof as free-radical scavengers in cigarette filters. Applicants are making these changes in order to advance prosecution and not for reasons related to patentability. Applicants reserve the right to file a divisional application directed to any of the cancelled embodiments.

Claims 26 to 32 are directed to a preferred embodiment where it was discovered that impregnating a cigarette filter with at least one polyphenol or its derivative, either with an extract or a mixture containing the compound or components themselves, one could reduce the free radicals of the cytotoxic molecules of the cigarette smoke during their passage through the cigarette filter (see p.1, lines 16 to 21 and the Examples). Support for this set of claims is found in original claims 1 to 10, which have been rewritten so that they comply with conventional U.S. practice; i.e., the claims do not recite the phrase "use of." Hence, as the original claims have not been narrowed, the application of the Doctrine of Equivalents is not affected.

It is urged that the subject matter presently claimed is non-obvious over FR 2 564 296 ("French Patent") in view of Daher et al., U.S. Patent 4,738,857 ("Daher") and Yanishlieva-

Maslorva et al. in "Sources of Natural Antioxidants," ("Natural Antioxidants"). It is urged that none of these teachings in any fair combination suggests to one of ordinary skill in the art that impregnating a cigarette filter with a mixture comprising at least one polyphenol compound or its derivative or an extract of a plant from the *Labiatae* family would reduce free-radicals in cigarette smoke since the French patent merely discloses that the oils "aromatizes the cigarette smoke, protects their lungs and respiratory system generally due to their antiseptic power and allows supplemental retention of tars" and is silent with respect to reducing the free-radicals containing cytotoxic effects from cigarette smoke. Daher and Natural Antioxidants do not correct for this deficiency since they are also silent with respect to this property.

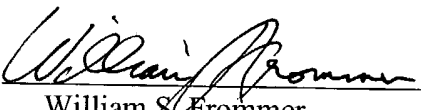
Moreover, polyphenols in a rosemary extract are completely different from those found in rosemary oils. The reason for this is due to the differences between the manufacturing process for an oil versus an extract. Water vapor treatment of rosemary is used to obtain oils. Hence, the polyphenol components in oils are water soluble. This stands in contrast to rosemary extracts. Extracts contain polyphenols that are not water soluble since an organic solvent is used in the extraction process. Hence, the polyphenols would not be the same as evidenced by their divergent solubilities in water. Thus, the French patent cannot suggest the present invention.

Claims 18 to 22 stand rejected under 35 USC §103(a) for allegedly being unpatentable over the French patent in view of Daher and Natural Antioxidants. It is urged that this rejection is moot for the reasons stated above, and should be withdrawn.

Favorable action is earnestly solicited.

Respectfully submitted,

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